

Official**RECEIVED**
FEB 19 2002
TL

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of Dent et al.)
Serial No.: 09/770804)
Filed: January 26, 2001)
For: Adaptive Antenna Optimization Network) Group Art Unit: 2631
Attorney's Docket No: 4015-2041)

Commissioner for Patents
Washington, D.C. 20231

HS
3-5-02

**REVOCATION AND POWER OF ATTORNEY
WITH STATEMENT UNDER 27 CFR 3.73 (b)
AND CHANGE OF CORRESPONDENCE ADDRESS**

Sir:

Ericsson Inc., a corporation, certifies that it is the assignee of the entire right, title and interest in and to the above-entitled U.S. patent application, and the invention disclosed therein, by virtue of the assignment from the inventor(s) to Ericsson Inc. recorded in the Patent and Trademark Office at Reel/Frame 011561/0967. A copy of the assignment is attached hereto.

The undersigned has reviewed all the documents in the chain of title of the patent application identified above and, to the best of undersigned's knowledge and belief, Ericsson Inc. is the assignee of the entire right, title and interest in the U.S. patent application identified.

Ericsson Inc. hereby revokes all previous Powers of Attorney and appoints as my attorneys and/or agents with full power of substitution and revocation, to prosecute this application and transact all business in the United States Patent and Trademark Office, and in countries other than the United States, and to do all things necessary or appropriate therefore before any competent International Authorities in connection with any international patent application(s) corresponding to the above-identified application, all of

the registered practitioners of the law firm of Coats & Bennett, P.L.L.C. identified by
Customer Number 24112:



24112

PATENT TRADEMARK OFFICE

24112

24112

PATENT TRADEMARK OFFICE

and the following Ericsson Inc. attorneys and/or agents: Stephen A. Calogero, Reg. No. 41,491; Dennis J. Williamson, Reg. No. 32,338; Mark C. Terrano, Reg. No. 40,200; Jon Han, Reg. No. 41,403; Sidney Weatherford, Reg. No. 45,602; and Roger Burleigh, Reg. No. 40,542.

Please address all future correspondence to

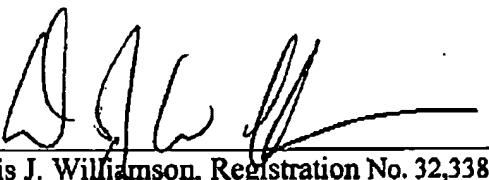
David E. Bennett
Coats & Bennett, P.L.L.C.
1400 Crescent Green, Suite 300
Cary, North Carolina 27511

Please direct all telephone calls about this application and the resulting patent to:

David E. Bennett
Telephone: (919) 854-1844

The undersigned is empowered to sign this statement on behalf of the assignee.

2/15/02
Date



Dennis J. Williamson, Registration No. 32,338
Associate General Counsel

511 Davis Drive
Research Triangle Park, NC 27709
Tel: (919) 472-1641
Fax: (919) 472-7449



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

MAY 14, 2001

PTAS

A standard linear barcode is positioned horizontally across the page, consisting of vertical black bars of varying widths on a white background.

101632061A

BUCHANAN INGERSOLL
BRYAN H. OPALKO
ONE OXFORD CENTRE, 20TH FLOOR
PITTSBURGH, PA 15219

UNITED STATES PATENT AND TRADEMARK OFFICE
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF
THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS
AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER
REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 703-308-9723. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY, SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/01/2001

REEL/FRAME: 011561/0967
NUMBER OF PAGES: 28

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
DENT, PAUL W.

DOC. DATE: 01/24/2001

ASSIGNOR:
HOLSHouser, HOWARD EUGENE

DOC. DATE: 01/18/2001

ASSIGNOR:
PHILLIPS, JOHN CHARLES

DOC DATE: 01/22/2001

ASSIGNOR:
DOLMAN, ROD

DOC. DATE: 01/23/2001

ASSIGNOR:
BOESCH, RON D.

DOC. DATE: 01/23/2001

02/19/02

10:50

COATS+BENNETT → 17038729313

NO. 001

D04

011561/0967 PAGE 2

ASSIGNEE:

ERICSSON, INC.
7001 DEVELOPMENT DRIVE
P.O. BOX 13969
RESEARCH TRIANGLE PARK
NORTH
CAROLINA
27709

SERIAL NUMBER: 09770804
PATENT NUMBER:

FILING DATE: 01/26/2001
ISSUE DATE:

MARGARET LASALLE, PARALEGAL
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

FORM PTO-1619A
Expires 03/30/99
OMB 0651-0027

03-12-2001

U.S. Department of Commerce
Patent and Trademark Office
PATENT

101632061

3-1-01

RECORDATION FORM COVER SHEET PATENTS ONLY

TO: The Commissioner of Patents and Trademarks: Please record the attached original document(s) or copy(ies).

Submission Type

<input checked="" type="checkbox"/> New	<input type="checkbox"/> Resubmission (Non-Recordation)
Document ID# <input type="text"/>	
<input type="checkbox"/> Correction of PTO Error	<input type="checkbox"/> Reel # <input type="text"/> Frame # <input type="text"/>
<input type="checkbox"/> Corrective Document	
<input type="checkbox"/> Reel # <input type="text"/> Frame # <input type="text"/>	

Conveyance Type

<input checked="" type="checkbox"/> Assignment	<input type="checkbox"/> Security Agreement
<input type="checkbox"/> License	<input type="checkbox"/> Change of Name
<input type="checkbox"/> Merger	<input type="checkbox"/> Other <input type="text"/>
U.S. Government (For Use ONLY by U.S. Government Agencies)	
<input type="checkbox"/> Departmental File	<input type="checkbox"/> Secret File

Conveying Party(ies)

Mark if additional names of conveying parties attached Execution Date
Month Day Year

Name (line 1) Paul W. Dent 01 24 01

Name (line 2)

Second Party

Name (line 1) Howard Eugene Holshouser 01 18 01

Name (line 2)

Receiving Party

Mark if additional names of receiving parties attached

Name (line 1) Ericsson, Inc. If document to be recorded
as an assignment and the
receiving party is not
domiciled in the United
States, an appointment
of a domestic
representative is attached.
(Designation must be a
separate document from
Assignment)

Name (line 2)

Address (line 1) 7001 Development Drive

Address (line 2) P.O. Box 13969

Address (line 3) Research Triangle Park City North Carolina State/Country 27709 Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name
Address (line 1)
Address (line 2)
Address (line 3)
Address (line 4)

03/09/2001 670H11 00000102 09770804

FOR OFFICE USE ONLY

01 FC 581

40.00 OP

40E

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the document and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0627), Washington, D.C. 20585. See OMB Information Collection Budget Package 0651-0627, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

FORM PTO-1619C
Expires 06/30/99
OMB 0551-0027

**RECORDATION FORM COVER SHEET
CONTINUATION
PATENTS ONLY**

U.S. Department of Commerce
Patent and Trademark Office
PATENT

Conveying Party(ies)

Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Name (line 1)

Execution Date
Month Day Year
01 22 01

Name (line 2)

Execution Date
Month Day Year
01 23 01

Name (line 1)

Execution Date
Month Day Year
01 19 01

Name (line 2)

Name (line 1)

Name (line 2)

Receiving Party(ies)

Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

If document to be recorded
is an assignment and the
receiving party is not
domiciled in the United
States, an appointment
of a domestic representative
is attached. (Designation
must be a separate
document from
Assignment)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

If document to be recorded
is an assignment and the
receiving party is not
domiciled in the United
States, an appointment
of a domestic representative
is attached. (Designation
must be a separate
document from
Assignment)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Patent Number(s)

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

FORM PTO-1619B
1 Expires 06/30/09
OMB 0551-0027

Page 2

U.S. Department of Commerce
Patent and Trademark Office
PATENT

Correspondent Name and AddressArea Code and Telephone Number **412/562-1893**Name **Bryan H. Opalko**Address (line 1) **BUCHANAN INGERSOLL**Address (line 2) **One Oxford Centre, 20th Floor**Address (line 3) **Pittsburgh, PA 15219**

Address (line 4)

Pages Enter the total number of pages of the attached conveyance document including any attachments. # **25**

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)**09/770,804****Patent Number(s)**

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month **Day** Year **Year**

Patent Cooperation Treaty (PCT)

PCT PCT PCT

Enter PCT application number

only if a U.S. Application Number PCT PCT PCT

has not been assigned.

Number of Properties

Enter the total number of properties involved.

1**Fee Amount**Fee Amount for Properties Listed (37 CFR 3.41): \$ **40.00**

Method of Payment:

Deposit Account

Deposit Account

(Enter for payment by deposit account or if additional fees can be charged to the account.)

Deposit Account Number: **# 02-4553**

Authorization to charge additional fees:

Yes No **Statement and Signature**

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Bryan H. Opalko, Reg. No. 40,751
Name of Person Signing

February 27, 2001

Date

ASSIGNMENT

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee.

DATED:

24 JAN, 2001

Paul W. Dent

(SEAL)

Paul W. Dent

_____, 2001

(SEAL)

Howard Eugene Holshouser

_____, 2001

(SEAL)

John Charles Phillips

_____, 2001

(SEAL)

Rod Dolman

_____, 2001

(SEAL)

Ron Boesch

State of South Carolina :

ss:

County of Wake :

Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 24th day of January, 2001.

Barbara G. Frederick
Notary Public

(NOTARIAL SEAL)

State of _____ :

County of _____ :

ss:

Before me, a Notary Public in and for the said County and State, personally appeared HOWARD EUGENE HOLSHouser who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ :

County of _____ :

ss:

Before me, a Notary Public in and for the said County and State, personally appeared JOHN CHARLES PHILLIPS who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared ROD DOLMAN who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared RON BOESCH who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2000.

Notary Public

(NOTARIAL SEAL)

A S S I G N M E N T

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee.

DATED:

_____, 2001

(SEAL)

Paul W. Dent

18 January, 2001

(SEAL)

Howard Eugene Holshouser

_____, 2001

(SEAL)

John Charles Phillips

_____, 2001

(SEAL)

Rod Dolman

_____, 2001

(SEAL)

Ron Boesch

State of _____ :

: ss:

County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of North Carolina : ss:
County of Wake :

Before me, a Notary Public in and for the said County and State, personally appeared HOWARD EUGENE HOLSHouser who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 18th day of January, 2001.

Dorothy Lewis
Notary Public

(NOTARIAL SEAL)

State of _____ :
: ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared JOHN CHARLES PHILLIPS who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared ROD DOLMAN who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared RON BOESCH who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2000.

Notary Public

(NOTARIAL SEAL)

ASSIGNMENT

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee.

DATED:

_____, 2001

(SEAL)

Paul W. Dent

_____, 2001

(SEAL)

Howard Eugene Holshouser

January 22, 2001

(SEAL)

John Charles Phillips

_____, 2001

(SEAL)

Rod Dolman

_____, 2001

(SEAL)

Ron Boesch

State of _____ :

: ss:

County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this _____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared HOWARD EUGENE HOLSHouser who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of North Carolina : : ss:
County of Durham :

Before me, a Notary Public in and for the said County and State, personally appeared JOHN CHARLES PHILLIPS who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 22 day of January, 2001.

Denise W. Buck
Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared ROD DOLMAN who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared RON BOESCH who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2000.

Notary Public

(NOTARIAL SEAL)

ASSIGNMENT

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee.

DATED:

_____, 2001 _____ (SEAL)
Paul W. Dent

_____, 2001 _____ (SEAL)
Howard Eugene Holshouser

_____, 2001 _____ (SEAL)
John Charles Phillips

1/23/, 2001 Rod Dolman _____ (SEAL)
Rod Dolman

_____, 2001 _____ (SEAL)
Ron Boesch

State of _____ : _____ ; ss:

County of _____ : _____

Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this _____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ :

County of _____ :

ss:

Before me, a Notary Public in and for the said County and State, personally appeared HOWARD EUGENE HOLSHouser who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ :

County of _____ :

ss:

Before me, a Notary Public in and for the said County and State, personally appeared JOHN CHARLES PHILLIPS who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of NORTH CAROLINA : ss:
County of Wake

Before me, a Notary Public in and for the said County and State, personally appeared ROD DOLMAN who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 23rd day of January, 2001.

Donna J. Lewis
Notary Public

(NOTARIAL SEAL)

State of _____ :
County of _____ : ss:

Before me, a Notary Public in and for the said County and State, personally appeared RON BOESCH who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this _____ day of _____, 2000.

Notary Public

(NOTARIAL SEAL)

ASSIGNMENT

WHEREAS, We, Paul W. Dent, Howard Eugene Holshouser, John Charles Phillips, Rod Dolman and Ron Boesch, residing at Pittsboro, Chatham County, North Carolina, Efland, Orange County, North Carolina, Newhill, Wake County, North Carolina, Forest, Bedford County, Virginia, and Morrisville, Wake County, North Carolina respectively, have invented certain new and useful improvements in ADAPTIVE ANTENNA OPTIMIZATION NETWORK for which we have this day executed an application for United States Letters Patent.

AND WHEREAS, Ericsson Inc., a Delaware corporation, having a place of business at 7001 Development Drive, P. O. Box 13969, Research Triangle Park, North Carolina 27709, hereinafter called the "assignee", is desirous of acquiring the entire right, title and interest in and to said application and the inventions and improvements therein disclosed;

NOW, THEREFORE, in consideration of One (\$1.00) Dollar and other good and valuable consideration paid to us by said assignee, receipt whereof we acknowledge, we do hereby assign, sell, transfer, and set over unto said assignee the entire right, title, and interest in and to said application and the inventions and improvements therein disclosed for the United States and all foreign countries and any Letters Patent which may issue therefor in the United States and all foreign countries and all divisions, reissues, continuations, renewals, and/or extensions thereof including all priority rights under the International Convention associated therewith for each country and the Union, said assignee to have and to hold the interests herein assigned to the full ends of the terms of said Letters Patent and any and all divisions, reissues, continuations, renewals,

and/or extensions thereof, respectively, as fully and entirely as the same would have been held and enjoyed by us had this assignment not been made.

The Commissioner of Patents and Trademarks is requested to issue such Letters Patent in accordance herewith. We covenant that we are the lawful owners of said application, inventions, and improvements, that the same are unencumbered, that no license has been granted to make, use or vend the said inventions or improvements or any of them, and that we have the full right to make this assignment.

And for the consideration aforesaid, we agree jointly and individually that we will communicate to said assignee or the representatives thereof any facts known to us respecting said inventions and improvements, and will, upon request, but without expense to us, testify in any legal proceedings, sign all lawful papers, execute all divisional, reissue, continuation, renewal and/or extension applications, make all rightful oaths, and generally do all other and further lawful acts, deemed necessary or expedient by said assignee or by counsel for said assignee, to assist or enable said assignee to obtain and enforce full benefits from the rights and interests herein assigned. This

assignment shall be binding upon our heirs, executors, administrators, and/or assigns, and shall inure to the benefit of the successors, and/or assigns, as the case may be, of said assignee.

DATED:

_____, 2001 _____ (SEAL)
Paul W. Dent

_____, 2001 _____ (SEAL)
Howard Eugene Holshouser

_____, 2001 _____ (SEAL)
John Charles Phillips

_____, 2001 _____ (SEAL)
Rod Dolman

19 Jan 2001 Ronald D Boesch _____ (SEAL)
Ron Boesch

State of _____ :

County of _____ :

ss:

Before me, a Notary Public in and for the said County and State, personally appeared PAUL W. DENT who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared HOWARD EUGENE HOLSHouser who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared JOHN CHARLES PHILLIPS who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of _____ : ss:
County of _____ :

Before me, a Notary Public in and for the said County and State, personally appeared ROD DOLMAN who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this ____ day of _____, 2001.

Notary Public

(NOTARIAL SEAL)

State of North Carolina : ss:
County of Wake :

Before me, a Notary Public in and for the said County and State, personally appeared RON BOESCH who acknowledged that he is the persons who executed the foregoing assignment and acknowledged it to be his free and voluntary act and deed.

Witness my hand and notarial seal this 19th day of January, ²⁰⁰¹ 2000.

Barbara J. Kuhlweil
Notary Public

(NOTARIAL SEAL)

My Commission Expires
On March 1, 2003

FORM PTO-1619A
Expires 06/30/99
OMB 0651-0027

U.S. Department of Commerce
Patent and Trademark Office
PATENT

RECORDATION FORM COVER SHEET PATENTS ONLY

TO: The Commissioner of Patents and Trademarks; Please record the attached original document(s) or copy(ies).

Submission Type

<input checked="" type="checkbox"/> New	<input type="checkbox"/> Resubmission (Non-Recordation)
<input type="checkbox"/> Document ID# <input type="text"/>	<input type="checkbox"/> Correction of PTO Error
<input type="checkbox"/> Reel # <input type="text"/> Frame # <input type="text"/>	<input type="checkbox"/> Corrective Document
<input type="checkbox"/> Reel # <input type="text"/> Frame # <input type="text"/>	

Conveyance Type

<input checked="" type="checkbox"/> Assignment	<input type="checkbox"/> Security Agreement
<input type="checkbox"/> License	<input type="checkbox"/> Change of Name
<input type="checkbox"/> Merger	<input type="checkbox"/> Other <input type="text"/>
U.S. Government (For Use ONLY by U.S. Government Agencies)	
<input type="checkbox"/> Departmental File	<input type="checkbox"/> Secret File

Conveying Party(ies)

Mark if additional names of conveying parties attached Execution Date
Month Day Year

01 24 01

Name (line 1) Paul W. Dent

Name (line 2)

Second Party

Name (line 1) Howard Eugene Holshouser

Execution Date
Month Day Year

01 18 01

Name (line 2)

Receiving Party

Mark if additional names of receiving parties attached

Name (line 1) Ericsson, Inc.

If document to be recorded
is an assignment and the
receiving party is not
domiciled in the United
States, an appointment
of a domestic
representative is attached.
(Designation must be a
separate document from
Assignment.)

Name (line 2)

Address (line 1) 7001 Development Drive

Address (line 2) P.O. Box 13969

Address (line 3) Research Triangle Park City North Carolina State/Country

27709 Zip Code

Domestic Representative Name and Address

Enter for the first Receiving Party only.

Name

Address (line 1)

Address (line 2)

Address (line 3)

Address (line 4)

FOR OFFICE USE ONLY

Public burden reporting for this collection of information is estimated to average approximately 30 minutes per Cover Sheet to be recorded, including time for reviewing the documents and gathering the data needed to complete the Cover Sheet. Send comments regarding this burden estimate to the U.S. Patent and Trademark Office, Chief Information Officer, Washington, D.C. 20231 and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Paperwork Reduction Project (0651-0027), Washington, D.C. 20580. See OMB Information Collection Budget Package 0651-0027, Patent and Trademark Assignment Practice. DO NOT SEND REQUESTS TO RECORD ASSIGNMENT DOCUMENTS TO THIS ADDRESS.

Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

FORM PTO-1619C
Expl. 08/30/99
01/08 02/21-0027

RECORDATION FORM COVER SHEET CONTINUATION PATENTS ONLY

U.S. Department of Commerce
Patent and Trademark Office
PATENT

Conveying Party(ies)

Mark if additional names of conveying parties attached

Enter additional Conveying Parties

Name (line 1)

Execution Date
Month Day Year
01 22 01

Name (line 2)

Execution Date
Month Day Year
01 23 01

Name (line 1)

Name (line 2)

Execution Date
Month Day Year
01 19 01

Name (line 1)

Name (line 2)

Receiving Party(ies)

Mark if additional names of receiving parties attached

Enter additional Receiving Party(ies)

Name (line 1)

If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Name (line 1)

If document to be recorded is an assignment and the receiving party is not domiciled in the United States, an appointment of a domestic representative is attached. (Designation must be a separate document from Assignment.)

Name (line 2)

Address (line 1)

Address (line 2)

Address (line 3)

City

State/Country

Zip Code

Application Number(s) or Patent Number(s)

Mark if additional numbers attached

Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).

Patent Application Number(s)

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

Patent Number(s)

<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>

FORM PTO-1619B
Expires 06/30/98
GSA 0651-0027

Page 2

U.S. Department of Commerce
Patent and Trademark Office
PATENT

Correspondent Name and AddressArea Code and Telephone Number **412/562-1893**Name **Bryan H. Opalko**Address (line 1) **BUCHANAN INGERSOLL**Address (line 2) **One Oxford Centre, 20th Floor**Address (line 3) **Pittsburgh, PA 15219**

Address (line 4)

PagesEnter the total number of pages of the attached conveyance document
including any attachments.# **25****Application Number(s) or Patent Number(s)** **Mark if additional numbers attached***Enter either the Patent Application Number or the Patent Number (DO NOT ENTER BOTH numbers for the same property).***Patent Application Number(s)****09/770,804****Patent Number(s)**

If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

Month **Day** Year**Patent Cooperation Treaty (PCT)**

Enter PCT application number

PCT**PCT****PCT**only if a U.S. Application Number **PCT**
has not been assigned.**PCT****PCT****Number of Properties**

Enter the total number of properties involved.

#

1**Fee Amount**Fee Amount for Properties Listed (37 CFR 3.41): \$ **40.00**

Method of Payment:
Deposit Account

 Enclosed **Deposit Account**

(Enter for payment by deposit account or if additional fees can be charged to the account)

Deposit Account Number:# **02-4553****Authorization to charge additional fees:****Yes****No****Statement and Signature**

To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Charges to deposit account are authorized, as indicated herein.

Bryan H. Opalko, Reg. No. 40,751
Name of Person Signing

February 27, 2001

Date